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(1913)

# A New Era in Lighting

Warner Automatic Electric

Light Plants



Put Electricity in the Home

The Warner Lamp Company

GENERAL OFFICE 422 LANE BUILDING

Davenport, Iowa

ЭТИТИАН ИЛЛМАН  
АИРЛСДАЛН



## Make the Home Healthful by the Liberal Use of Electricity

Electric Light is conceded to be the cleanest, safest and most healthful of artificial lights. The exposed flame of kerosene and gas lamps, the labor and annoyance of filling and caring for same, the disagreeable odors, the deposit of soot on walls and ceilings, the use of matches with their ever present fire risk—all are abolished forever by the use of ELECTRICITY.

The WARNER AUTOMATIC ELECTRIC LIGHT AND POWER PLANT marks the most wonderful stage in the development and application of ELECTRICITY to the needs of mankind.

It provides for the isolated home the numerous conveniences and comforts that are enjoyed in the city residence, and at a cost extremely reasonable. The country merchant can also keep his place of business better lighted, more attractive, and make it a more agreeable place for people to trade. The lighting of country churches and schools can be made modern by the installation of one of these plants—better light provided for evening lectures and entertainments, and so forth.

The WARNER AUTOMATIC ELECTRIC LIGHT AND POWER PLANT so simplifies the matter of producing electricity that an experienced electrician is not needed to install and operate the plant. Anyone of ordinary intelligence can successfully set up and care for the outfit, because the knowledge, experience, skill and discretion are all found in the AUTOMATIC switchboard.

WARNER AUTOMATIC ELECTRIC LIGHT AND POWER PLANTS, aside from producing extremely clean and desirable light, also furnish power for operating machinery. The housewife may use the motor to do her bidding in a score of ways. With it she may wash the clothes, iron, sew, run the vacuum cleaner, separate the cream, churn, pump the water, and prepare numberless kinds of foods. And with lightened labor comes added comfort, for the electric fan banishes heat from the home. We are also prepared to furnish a most practical refrigerating machine to be used in connection with the Warner Automatic Plants. It costs less than ice and eliminates the unsanitary conditions and the many disadvantages of ice.

The farmer will find electricity as convenient as does his wife. By simply touching the button, the haymow is brilliantly and *safely* lighted; the barn illuminated and any dark corner made as light as day. It may be used to shell the corn, cut the feed, elevate the grain, pump all the water, sharpen the tools, charge the sparker batteries for the automobile, and do numerous other hard jobs.

Electric light is the only light which precedes you. Turn a switch at the top of the stairs, and your way is lighted until you reach the bottom. The same convenience is yours in going down long halls, going into the attic, cellar, or from any one part of the house to another. Electric light precedes you as you go among the cattle at night; from the barn to the haymow, or from one outbuilding to another.

The cost of a **WARNER AUTOMATIC ELECTRIC LIGHT AND POWER PLANT** is not an expense, but the very best kind of an investment. The farmer no longer considers the mower, the reaper, the binder, the thresher, the hay loader, and all the other modern appliances for farming as an item of expense. He rightly regards them as a mighty good investment, if not an absolute necessity, and the time is rapidly coming when electricity on the farm will take its rightful place, and the farmer will actually wonder how he ever got along without it.

The farmer is not the only person who will enjoy the conveniences and comfort of this most practical plant. There are thousands of places in the world today where the **WARNER AUTOMATIC ELECTRIC LIGHT AND POWER PLANT** will fill a long felt need. It is just the thing for the country home, the pleasure resort, sanitariaums, hotels, country clubs, moving picture shows, theatres, etc., etc.

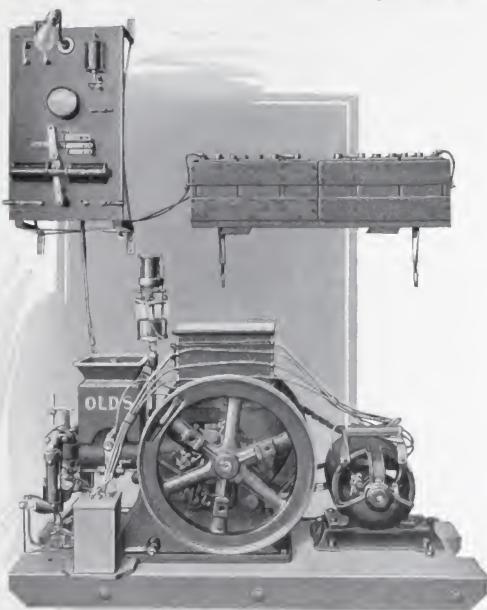


## The Warner Automatic Electric Light and Power Plant

Let us tell you just what the plant is like. It is entirely complete, consisting of a high grade, self-contained gasoline or oil engine, a specially wound dynamo, a set of storage batteries, and a switchboard so wonderful in its construction that it automatically governs the action of the entire lighting system. The engine and dynamo are securely fastened to a strong wooden base as shown in the cut, they are belted together by a suitable belt so that when one revolves the other also moves in the same direction. The oiling system of the engine is controlled by an electromagnet which automatically turns

on the oil when the engine and dynamo are in motion and turns it off when they stop revolving. You don't have to remember to start and stop the oil.

It is a well known fact that a dynamo will convert electrical energy into mechanical power as well as it converts mechanical power into electrical energy. Therefore when the switchboard turns the electrical energy from the batteries into the dynamo the dynamo becomes an electric motor and begins to revolve, being belted to the engine both dynamo and engine begin to revolve at a rapid rate. When the switchboard turns on the current from the batteries into the dynamo it also closes the electric circuit to the ignition



THE 75 LIGHT PLANT

system of the engine, so that it soon begins to revolve under its own power, and it then drives the dynamo at a speed much faster than the dynamo was making as a motor. As soon as the speed of the dynamo is increased by the engine, it then becomes a generator of electrical energy and ceases to be a motor. The voltage of the current is therefore raised as the speed of the engine increases. A suitable governor on the engine keeps it at just the right speed to give the proper voltage for re-charging the batteries and furnishing light and power. When the batteries are fully charged the switchboard shuts off the current and opens the ignition circuit so that the engine stops. The switchboard and batteries may be put on the same base with the engine and dynamo so as to make a more compact unit, and to enable the plant to be shipped as connected up, ready for operation as soon as the crate is removed and oil put in the tank.

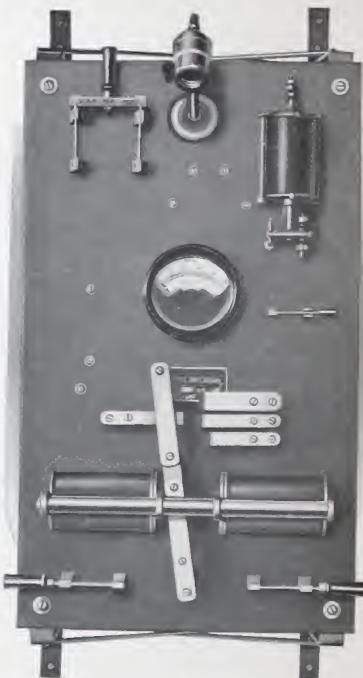
## The Warner Automatic Switchboard

The switchboard, a very important part of the Warner Automatic Electric Light and Power Plant, is the engineer—the watchman who guards the system. The switchboard controls the action absolutely. It starts the engine, charges the batteries, stops the engine, and charges again as soon as the batteries require more power. Think what a saving in labor, worry and money this automatic feature means.

The switchboard is composed of a marbelized slate board, one inch thick. In the upper left hand corner is a switch used to connect and disconnect the switchboard with the wiring in the house. At the lower left hand corner is a small switch connecting the dynamo with the switchboard. In the center of the board is mounted a high class voltmeter and directly below the voltmeter is the large automatic switch which starts the engine and charges the batteries. In the upper right hand corner is the Relay, the vital controlling element of the board. This consists of a Solenoid of fine wire connected directly across the battery. It has a balanced armature which is suspended from above with a small coil spring; the latter being used for making fine adjustments. This balanced armature carries a carbon contact and immediately above and below are stationary contacts with suitable means for adjusting the position of each. The position of this balanced armature is determined by how fully the batteries are charged. When the batteries are fully charged this armature is lifted up and gradually drops as current is taken from the batteries, until it reaches the extreme low position at which the engine is started.

When the balanced armature of the Relay touches the upper contact the current from the battery passes through the left hand Solenoid of the large automatic switch; thus throwing the switch to the extreme left position. This stops the engine, the batteries being completely charged. As current is drawn from them the balanced armature drops lower until it touches the lower contact. This sends the current from the batteries through the right hand Solenoid, throwing the Switch to the extreme right position, starting the engine and re-charging the batteries.

The Warner Automatic Switchboard is therefore in reality a highly efficient "Engineer" which always keeps the batteries thoroughly charged and keeps the Plant in shape for instant use. It acts positively and never fails to perform its functions when called upon to supply you with an abundance of good light or power, whichever the demand may be.



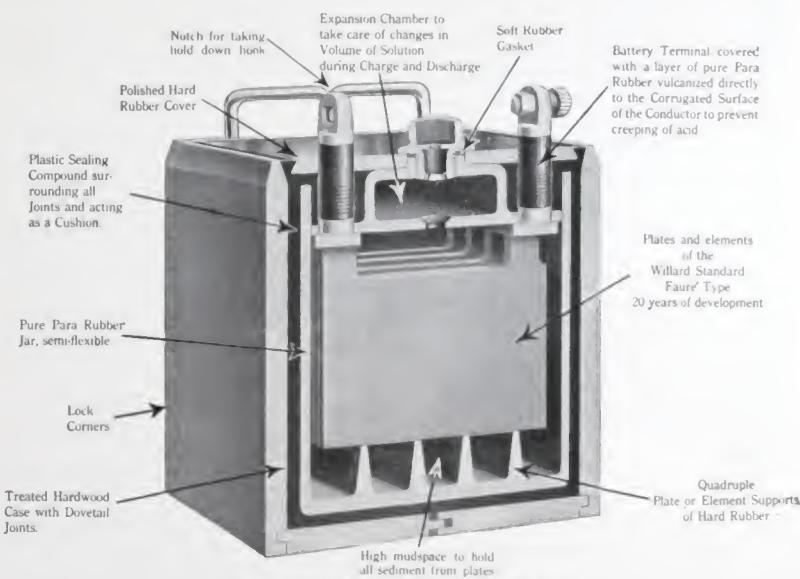
FRONT OF SWITCHBOARD

## Warner Storage Batteries

The storage battery is often designated as the heart of the lighting system. Our batteries are made especially for us by one of the oldest and most reliable storage battery companies in the world, and we are assured they possess to a marked degree every quality which will give the most efficient service for home lighting purposes.

They are furnished in sealed rubber jars, and are shipped fully charged—ready for use the instant they are received.

Warner batteries are chosen carefully so that the best and most economical service is realized, as well as the longest life. As the plants are made larger, their size increases.



Sectional Cut of Our Batteries

Warner batteries last long because they are never completely exhausted, and are never allowed to stand for any length of time in a partly discharged condition. The switchboard will not stop the engine until the batteries are fully charged; therefore "Sulphating" is not known.

Take this important point into consideration when considering the ordinary battery plants. As soon as discharging commences, sulphating begins, and in a short time the batteries are worthless, because of the salty substance which has formed on them. Sulphating is dreaded by almost every battery user, because this form of deterioration, similar to rust on steel, soon puts the batteries out of commission.

## Information About Storage Batteries

Any voltaic couple which is reversible, or capable of being renewed after exhaustion by passing an electric current through it in a direction opposite to that of flow or discharge, is called a storage battery.

The unit of storage battery capacity is the ampere hour—the product of rate of

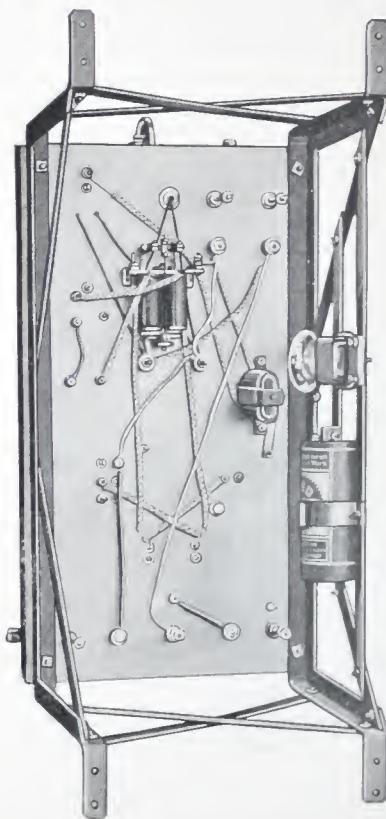
discharge by the time during which this discharge lasts, giving the total capacity, the battery being considered as completely discharged when the minimum voltage of 1.8 is reached. The capacity varies, however, with the rate of discharge, being less at rapid than at slow rates. The eight hour rate is generally taken as normal, that is, a fully charged battery having a capacity of 80 ampere hours will discharge 10 amperes continuously for eight hours, without the voltage falling below 1.8 volts.

The term "charged" does not mean that any electrical energy has been given to the plates or resides in them, but that the chemical condition of the elements is such that they form an active voltaic couple or battery, and differ in no wise from an ordinary primary element. A charged cell then, is one in which the positive plates are coated with lead peroxide, and the negatives with sponge lead. A discharged cell is one in which lead sulphate has formed on the plates.

The solution used in a storage battery, (known as electrolyte), consists of one part chemically pure sulphuric acid to three parts of distilled water, and should have a specific gravity of about 1250 degrees. In ordinary practice when the electrolyte gets low it will only be necessary to add pure distilled water or perfectly clean rain water. The solution

never has to be changed, but a sufficient quantity to cover the plates at least one-fourth inch should always be provided. The time required to charge a storage battery properly depends upon the type and construction of the cell. It varies from five to seven hours. The common fault with taking care of storage batteries is that they are either overcharged or discharged too low. When a battery is discharged below 1.9 volts per cell, the active material in the positive element is likely to dissolve and be washed out of the plate.

A battery is fully charged when the voltage reaches  $2\frac{1}{2}$  volts per cell. If charged above this point, or charged up to this point at a very rapid rate, the positive



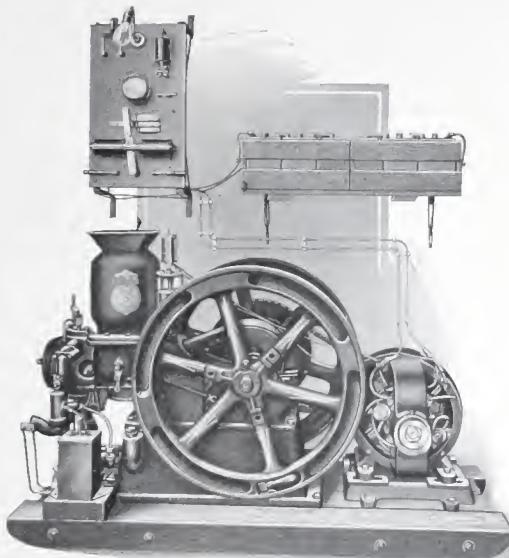
Back of Switchboard

plate will be greatly damaged, if not entirely ruined, due to the rapid formation of gas at the positive plate.

Since the storage battery takes such an important part in an electric light plant, any system or method of taking care of the batteries automatically is a valuable thing to consider. It is especially for that reason the Warner Automatic Electric Light Plant is so strongly recommended.

## The Self-Contained Engine

A self-contained engine is necessary to operate an electric light plant successfully. The engine used with the Warner outfit is an Olds engine, especially constructed for electric and power work. It is of the one cylinder, water-cooled type. A hit-and-miss governor is used, insuring the highest fuel economy. This governor is very sensitive and a perfectly steady light is assured. The timer is a simple device. The fly-wheels are amply large; and provisions are made on three of the spokes for attaching a pulley for operating other machinery. The gasoline tank is located in the base of the engine. The lubrication is done automatically, being controlled by an electro-magnet of the simplest construction.



150-Light Plant

The gasoline tank is located in the base of the engine. The lubrication is done automatically, being controlled by an electro-magnet of the simplest construction.

The carburetor, a vital part of every gasoline engine, is located above the gasoline tank. The gasoline is pumped into it automatically by the suction of the engine; no extra pump is required. An overflow pipe returns the surplus gasoline back to the tank, preventing waste of fuel.

The ignition is of the jump-spark type, which is conceded to be the most reliable—the kind that is universally used in automobile practice.

In connection with the gasoline tank is a float box with means for registering the amount of gasoline in the tank. When the gasoline is used to a certain point the float closes the electric circuit immediately and rings the bell.

## Warner Automatic Dynamo

The Warner Automatic Dynamo (or Generator) differs from other high-class electrical generators only in the balanced special shunt winding. The Warner Automatic Dynamo revolves in the same direction when running as a motor as it does when running as a generator, and it does this without switching or changing the connections or the use of the gears. The dynamo has self-oiling bearings, with rings which revolve the shaft and bring up the oil from the oil chamber below.

The commutator is made much larger than ordinary lighting machines of higher voltage. The brushes are made of copper and graphite and are amply large to carry the heavy current required in cranking the engine at the moment of starting.

The Warner Automatic Dynamo is practically self-contained and requires very little attention. Simply wipe off the commutator occasionally with a clean piece of oily cloth, and keep oil in the bearings and they will run for years without repairs of any kind.



## Warner Automatic Plants for Any Standard Voltage

The Warner Automatic Electric Light and Power Plant is regularly made for 30 and 110 volts. We recommend 30 volts for the 75 and 150 light plants where light and power is not to be taken farther than 500 feet. We are prepared to furnish any and all standard electrical devices for the 30 volt plants, so within the 500 foot limit there is everything in favor of 30 volts and absolutely nothing against it. Thirty volts is safer from short circuits. Such a current is harmless even for a child to handle. The most sensitive person need not fear a shock from an electrical current of 30 volts. The 30 volt plants cost less to start with and consequently will cost less to maintain. Although 30 volts has been adopted as the standard voltage for home light plants, still we can furnish any size plant for 110 volts, as shown in our price list.

## Prices and Data on Warner Automatic Electric Light and Power Plants

Plants are Rated in 8 C. P. Tungsten Lamps

	75 Light Plant	150 Light Plant	300 Light Plant	500 Light Plant	1000 Light Plant
Watt Capacity of Generator alone	750	1500	3000	5000	10000
Lamp Capacity of Generator alone	75	150	300	500	1000
Ampere-hour Capacity of Battery furnished	50	60	80	100	120
Total Watt Capacity of 30 Volt Battery	1500	1800			
Total Watt Capacity of 110 V Battery	2500	6600	8800	11000	13200
Lamp Capacity 30 V Battery for five hrs	30	36			
Lamp Capacity 110 V Battery for five hrs	110	132	176	280	264
Lamp Capacity of Generator and Battery Combined of 30 V Plant for five hrs	105	186			
Lamp Capacity of Generator and Battery Combined of 110 V Plant for five hrs	185	282	476	730	1264
Size Engine Used and Recommended	2 hp.	4 hp.	8 hp.	12.5 hp.	20 hp.
Price 30 V Plant, less engine	\$ 255	\$ 430			
Price 30 V Plant, complete	400	680			
Price 110 V Plant, less engine	516	694	\$ 995	\$ 1670	\$ 2400
Price 110 V Plant, complete	630	800	1390	1890	2530
Extra cg 60 Amp hr Battery with 30V Plant	15				
Extra cg 60 Amp hr Battery with 110V Plant	45				
Extra cg 80 Amp-hr Battery with 30V Plant	30	15			
Extra cg 80 Amp-hr Battery with 110V Plant	96	48			
Extra cg 100 Amp-hr Battery with 30V Plant	45	30			
Extra cg 100 Amp-hr Battery with 110V Plant	171	90	45		
Extra cg 120 Amp-hr Battery with 30V Plant	60	45			
Extra cg 120 Amp-hr Battery with 110V Plant	192	171	90	45	

Plants complete may be shipped with the batteries and switchboard attached to the same base with the Engine and Generator, such all plants will be shipped with flat leather belt drive instead of the V belt as shown.

### Prices on Various Separate Parts of Warner Automatic Plants

Plants are Rated in 8 C. P. Tungsten Lamps

	75 Light Plant	150 Light Plant	300 Light Plant	500 Light Plant	1000 Light Plant
Generator, complete with pulley and rheostat	\$ 85	\$ 142	\$ 216	\$ 310	\$ 480
50-AH	60-AH	60-AH	100-AH	120-AH	
Batteries for 30 volt plant, complete	105	120	135	150	165
50-AH	60-AH	60-AH	100-AH	120-AH	
Batteries for 110 volt plant, complete	336	384	432	480	528
Automatic Switchboard, complete	58	98	130	180	193
Special Electric Engine, complete	124	216	380	520	620
Accessories, complete	26	32	36	62	58

Accessories consist of a high grade, endless leather belt of the proper size and length; one automatic oil cup; cables and connectors for connecting up the batteries and generator with the switchboard, and a suitable wooden base with bolts for attaching engine, generator and switchboard to same.

In ordering generators tell us the size and make of your engine; size of flywheel and the engine speed. We always recommend running the belt on the flywheel of the engine so as to give the largest pulley on generator.

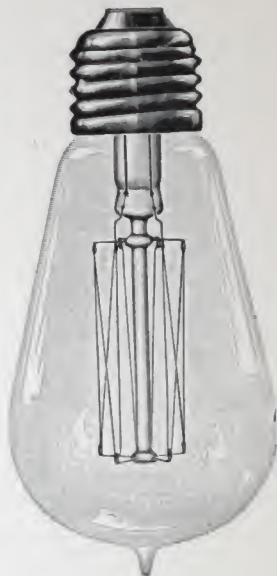
## Warner Tungsten Lamps

The Tungsten Lamp, which gets its name from the metal composing the filament, consumes only about one-third the power of the old Edison carbon lamp. The discovery of this wonderful lamp makes possible Electric Light for everybody. The Tungsten lamp is especially adapted to low voltage, and we carry it in stock in the following sizes:

Price, Pear Shaped Bulb, No. 1 Base.  
Either 30 or 110 Volts.

Candle Power . . . . .	8	16	20	32	40	100
Watts Consumed . . . . .	10	20	25	40	50	125
Amperes of 30-volt Lamps . . . . .	.3	.5	.75	.83	1.3	4.1
Price, Clear Globe . . . . .	.35	.35	.35	.35	.45	1.55
Price, Frosted Globe . . . . .	.38	.38	.38	.38	.49	1.65

Tungsten Lamps are shipped in standard packages containing 100 lamps, except the 100 c. p. size, these are shipped in packages of 24.



## Our Electric Washer

Will bring comfort, ease and pleasure to the housewife who does her own washing. These washers last a long time, in fact the electrical equipment will last almost a life time if properly oiled and taken care. The cost for the washer complete with power wringer is only \$55.00.

## Small Cost to Install

Electric wiring costs little and is easy to install. It is not necessary to break the plaster, ruin the decorations, tear up the floors or rip out the partitions, in order to wire a house. However, for dwellings we recommend the concealed method of wiring, placing the wires within the walls and between the ceilings and floors. The exposed, or knob and cleat wiring, is commonly used for wiring barns and outbuildings.

Without knowing the number of lamps to be used, the size of the home, barn and outbuildings, and the distance of buildings apart, it is impossible to give an accurate estimate of the cost of electric wiring, but by counting each place where a switch is wanted, and each place where you want a light, and figuring at \$2.00 each, the total should cover wire, insulators, and labor.

This price does not include lamps, switches or electric fixtures.

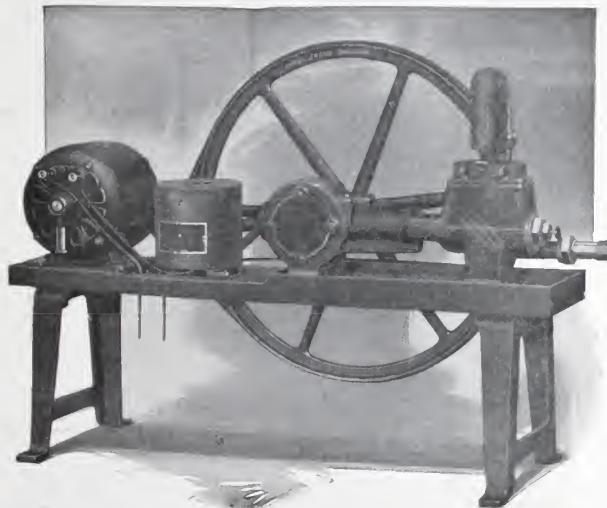
The largest single item of expense is labor, unless there should be a considerable distance between the outbuildings. In most cases the farmer is able to furnish help which will reduce this cost.

*The most satisfactory results are obtained by getting the work done by a good, competent, local wiring contractor.*

## Pump Water Electrically

Electricity has revolutionized the question of pumping water. The electric motor pump is the only ideal method of providing for a continuous fresh water system in the home and on the farm. It is the cheapest to install and requires practically no attention. The water is pumped direct from the source of supply, the mere act of drawing water by opening and closing a valve automatically starts and stops the pump. The whole equipment can be located almost anywhere because it takes up so little room.

Only a very small tank is required, in fact the only reason for using a tank at all is to prevent the motor from starting every time a pail of water is drawn. A 50 gallon tank is large enough for the average size residence. These pumps are adaptable to all conditions of service where the source of supply is not lower than 20 feet below the pump.



**Warner Automatic Water Pump**

These pumps are furnished complete with electric motor just as shown in the cut above, and are furnished in two types. One for direct pressure systems and the other for open tank systems. The direct pressure pumps have an automatic switch whereas the open tank pumps must be controlled with a hand operated switch. Any voltage will be furnished at prices given.

Size No. 1, 1-6 H. P., for direct pressure system, capacity 150 gallons an hr.	\$130.00
Size No. 1, 1-6 H. P., for open tank system, capacity 150 gallons an hr. . . . .	110.00
Size No. 3, 1-4 H. P., for direct pressure system, capacity 180 gallons an hr.	150.00
Size No. 3, 1-4 H. P., for open tank system, capacity 180 gallons an hr. . . . .	130.00
Size No. 5, 1-2 H. P., for direct pressure system, capacity 360 gallons an hr.	195.00
Size No. 5, 1-2 H. P., for open tank system, capacity 360 gallons an hr. . . . .	175.00
Air device for supplying air to pneumatic tanks fitted to pumps . . . . .	2.50

Prices f. o. b. Factory.

The cost of operation is very low. In most homes it will not amount to more than 15 cents a month for water for all domestic purposes.

For deep wells we use a pump jack and motor. The size motor varies from  $\frac{1}{2}$  H. P. to 1 H. P., depending on the depth of the well and other conditions. It may be controlled automatically or by hand switch.



## WHERE TO LOCATE

As shown by the above cut a desirable location for the Wane  
ment. It should be located as convenient to the house as possible.  
vided. While the batteries will not freeze, it is much better to have  
to prevent the water, which is used to keep the engine cylinder cool.  
no convenient place is available, we suggest building a warm house even  
nothing more important in the home than good light and a good fire.  
the user of electricity from a central station has to pay, if you own



## DATE THE PLANT

Warner Automatic Electric Light and Power Plant is in the base-  
le. By all means a clean, light, dry, warm place should be pro-  
have them in a warm place. They are sometimes put in "a dug out"  
cool, from freezing. Sometimes they are put in the tool house. If  
use especially for the plant and the water pumping system. There is  
a fresh water supply; electricity provides both of these as well as a  
these comforts at a remarkably low cost, just about one-third what  
own a Warner Automatic Electric Light and Power Plant.

## Electric Ceiling Fans



Our CEILING FANS are of the iron-clad type and present a neat, compact and symmetrical appearance. They are of the 4-blade type, 56-inch diam., single speed. For three speed regulator add \$2.00 NET.

Price No. 44, 30 or 110 volts, black japan finish, complete . . . . .	\$44.00
Price No. 45, 30 or 110 volts, oxy copper or brush brass . . . . .	52.00
Price No. 46, 30 or 110 volts, Electrolier Fan, or lights . . . . .	60.00

## Universal Desk and Bracket Fans

Electricity in the home will bring refreshing breezes on hot summer days and nights at a very small cost for electric fans. The power consumed by an ordinary fan just about equals two 16 c. p. lamps, and this power would not cost an owner of a Warner Automatic Electric Light and Power Plant more than  $\frac{1}{4}$  of a cent a day. Therefore you cannot afford to be without an electric fan. The regular price is as follows:

No. 42, 8" Residence Type, 30 or 110 V.,

D. C. . . . . \$17.00

No. 36, 12" Regular Type, 30 or 110 V.,

D. C. . . . . 27.00

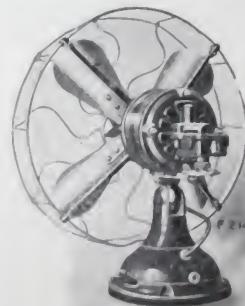
No. 236, 12" Oscillating Type, 30 or 110 V.,

D. C. . . . . 34.00

No. 237, 16" Oscillating Type, 30 or 110 V.,

D. C. . . . . 40.00

Finish—Blades, guards, and oil cups, brass. Balance of fan black enamel.

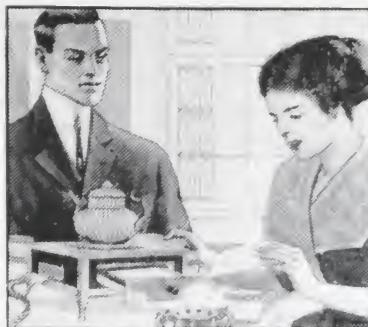


## Try Cooking With Electricity

Think of it—coffee—toast, in fact a full meal may be cooked on the dining-room table. Cheap? Yes—the mere cost of sending a letter will prepare the breakfast.

### Combination Stove and Toaster

It will boil, stew or fry on top, while you broil or toast in the drawer below. Nicely finished and has rubber tips so as not to mar the table. It is furnished complete with long cord, and attachment plug, and gives three degrees of heat. Furnished for either 30 or 110 volts at \$7.50 f. o. b. Factory. We have a regular catalogue of heating devices which you may have for the asking.

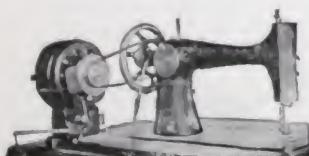


### Our Immersion Heater

The most economical heating and cooking device in the world, is our Immersion Heater. As the name implies it is immersed in the liquid which it heats, therefore not a single heat unit is lost. It may be used to heat or cook anything that is of a liquid nature. Its use is perfectly sanitary. It is light and is only 6-inches long. Used in connection with a Warner Automatic Electric Light and Power Plant the cost of operation will be less than one quarter of a cent an hour. It is furnished for either 30 or 110 volts, and the price is only \$4.00 delivered via mail.

### Our Electric Vacuum Cleaner

Is useful every day in the year. With it you can clean floors, carpets, rugs, curtains and clothes. It is light, efficient and durable. Total weight 6½ lbs. The total height is only 6½-inches. It can be attached to any lamp socket and used anywhere about the house. They require only a little oil occasionally and will last many years. Certainly no owner of a Warner Automatic Electric Light and Power Plant can afford to be without the pleasure which one of these faithful friends will give when they only cost \$30.00 for either 30 or 110 volts. Extra attachments, \$8.50. They take about the same power as three lamps.



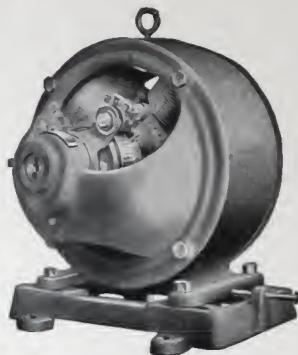
### Our Sewing Machine Motor

Will prove a great burden lifter in favor of the women folks. From three to five times the amount of sewing can be done in the same length of time with one of these motors. They cost \$18.00 and take about the same power as two lamps.

## Let a Motor Do Your Work

Warner Motors are time savers. There are so many uses to which an electric motor may be put that we refrain from trying to mention them. They are furnished in all sizes but we only list a few as follows. 30 and 110 volts same price.

Price 1-10 H. P., complete	\$22.50
Price 1-8 H. P., complete	28.00
Price 1-6 H. P., complete	32.50
Price 1-4 H. P., complete	48.00
Price 1-2 H. P., complete	57.00
Price 3-4 H. P., complete	77.00
Price 1 H. P., complete	90.00



## Our Electric Iron a Friend to Woman



Makes "Ironing Day" a real pleasure. Even the children like to use an electric iron. One iron does all the work. They will last a life time and only cost \$3.75. A week's washing may be ironed with our electric iron at a cost of  $\frac{1}{2}$  cent, to the owner of a Warner Automatic Electric Light and Power Plant. Weight 6 pounds. They come complete with long cord for attaching to convenient socket. They are guaranteed for life if properly used.

## Our Portable Reading Lamp

Is the finest thing of the kind ever offered for the money. It is just the thing to "set the parlor table off," and its cheerful glow will prevent the family circle from being broken at night. Even Grand-mother will stay up late because she can read without effort by the aid of our beautiful stand lamp. The finish is the very latest thing out, being an old ivory finish right on solid metal. The artistic colored shade blends beautifully with the metal portion. It is furnished in two sizes, price of the small size as shown in the cut, complete with cord and attachment plug is only \$14.00. Price of the larger one, which is nearly twice the size of the smaller one is only \$16.00 complete. It takes a nice portable reading lamp to put the finishing touches on a modern, electric lighted home.



## Fixtures

Care should be exercised in the selection to get the best results from an illumination standpoint. Elaborate fixtures, once stylish, are no longer considered so, the tendency now being towards a less display of brass and a more pretentious show of light. Fixtures which come down low are gradually being discarded. The ordinary chandelier is a relic of the gas age where gas burners had to be low enough to be easily reached. Electric light permits placing the lamps up out of the way, and out of range of the vision of the eye. This gives a soft, exceedingly beneficial, daylight effect.



X-16806

The new practice has greatly reduced the cost of fixtures, until at the present time a five or six room house can be nicely equipped at a fixture cost of only about \$25.00.

There is a great variety of design in fixtures, and the prices range accordingly.

### Expert Assistance Free

To be able to make a selection of fixtures that will give the most economical results and at the same time thoroughly harmonize is an accomplishment that few people possess, therefore our engineering department has carefully selected from the largest and most exclusive stock of fixtures in the world, six sets of fixtures as shown and described on the following pages.

### Complete Set Idea

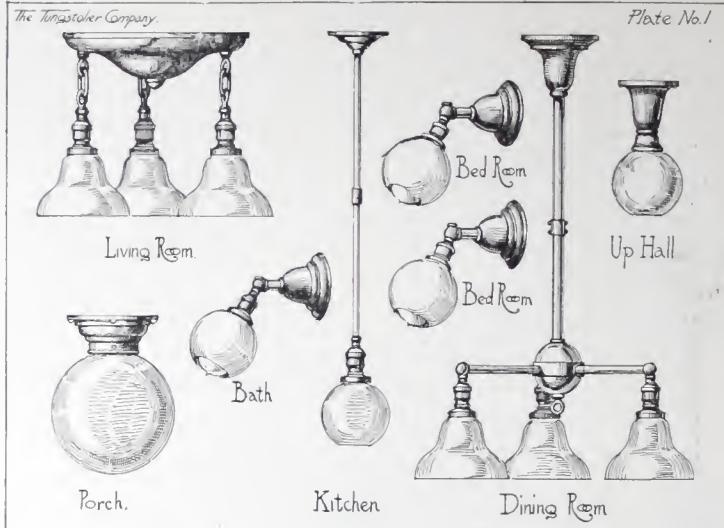
The fixtures come all complete as shown in the different plates, and include shades or glassware, shade holders, sockets and wiring. They are all nicely packed in one corrugated safety package about 20" square. This makes it convenient for dealers to carry them in stock, and they may be shipped anywhere with very little danger of breakage.

### Standard Finish

The finish of fixtures carried in stock is black on copper for the porch light, nickel for the bath room and brush brass for the others. Other standard trade finishes may be had at 10% extra cost, but it will likely mean a delay in shipment.

### Standard Equipment

The sockets on the brackets are the regular key sockets, all others are keyless. Pull chain sockets may be substituted at a *net charge* of 20 cents each. The combination wall bracket and ceiling fixture No. X-16806 shown on this page may be substituted for the regular wall brackets, although the price of it is \$2.00, which is somewhat higher than the wall brackets. On account of the fact that it may be used for either a wall or ceiling fixture we reserve the right to substitute it for the rigid wall fixtures shown unless otherwise specified in order.



PRICE COMPLETE FIXTURE SET AS SHOWN ABOVE (Plate No. 1)  
\$23.00.

Dimensions of package about 20" square. Weight 29 lbs.

Price of INDIVIDUAL UNITS wired and complete as shown above.

Name of Fixture	No. of Fixture	Price Complete	Number Lights	Length Inches	Spread Inches	Price Per Foot Extra Length
Living Room .	X2029	\$10.00	3	12½	10½	\$ .75 NET
Dining Room .	43	7.06	3	35	15	.30 NET
Bed Room . .	X15021	1.70	1		8	
Bath Room . .	X15021	1.70	1		8	
Kitchen . . .	41	1.96	1	35		
Upper Hall . .	2901	1.30	1	9		
Porch . . .	3631	1.14	1	10		

Length is measured to bottom of glassware.

Fixture X16806 is furnished in place of X15021, unless otherwise ordered.

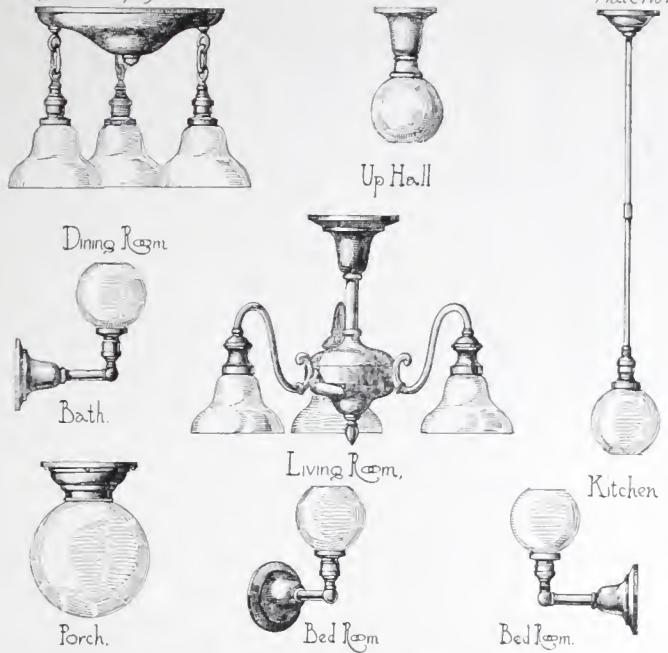
Prices f. o. b. Factory. •

Regular key sockets furnished on X15021, all other sockets keyless.

Pull chain sockets may be had at 20 cents each NET.

The Tungstoker Company

Plate No 2



PRICE COMPLETE FIXTURE SET AS SHOWN ABOVE (Plate No. 2)  
\$27.50.

Dimensions of package about 20" square. Weight 29 lbs.  
Price of INDIVIDUAL UNITS wired and complete as shown above.

Name of Fixture	No. of Fixture	Price Complete	Number Lights	Length Inches	Spread Inches	Price Per Foot Extra Length
Living Room . .	X-16883	\$11.70	3	20	17½	\$ .30 NET
Dining Room . .	X2029	10.00	3	12½	10½	.75 NET
Bed Room . .	C414¼	1.76	1		5½	
Bath Room . .	C414¼	1.76	1		5½	
Kitchen . .	41	1.96	1	35		
Upper Hall . .	2901	1.30	1	9		
Porch . . .	3631	1.14	1	10		

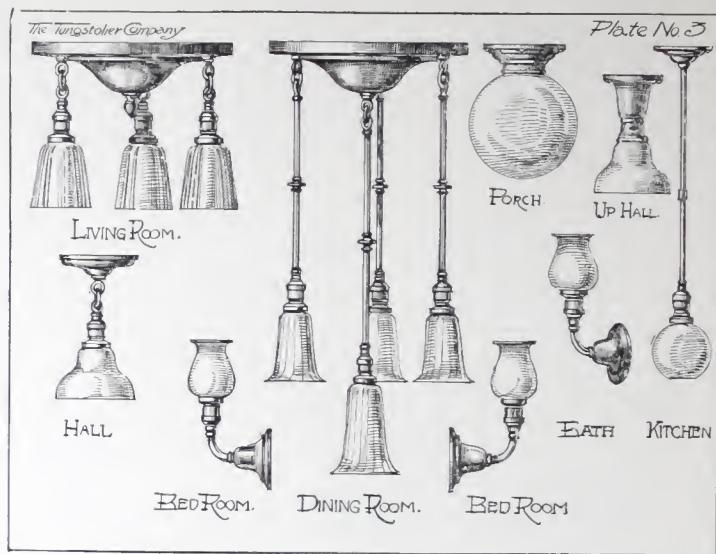
Length is measured to bottom of glassware.

Fixture X16806 is furnished in place of C414¼, unless otherwise ordered.

Prices f. o. b. Factory.

Regular key sockets furnished on C414¼, all other sockets keyless.

Pull chain sockets may be had at 20 cents each NET.



PRICE COMPLETE FIXTURE SET AS SHOWN ABOVE (Plate No. 3)  
\$33.00.

Dimensions of package about 20" square. Weight 33 lbs.  
Price of INDIVIDUAL UNITS wired and complete as shown above.

Name of Fixture	No. of Fixture	Price Complete	Number Lights	Length Inches	Spread Inches	Price Per Foot Extra Length
Living Room . .	X16254	\$10.80	3	12½	12½	\$.75 NET
Dining Room . .	X16255	16.20	4	25	12½	1.20 NET
Hall . . . .	X16256	2.36	1	15		.25 NET
Bed Room . . .	X16257	2.20	1		5½	
Bath Room . . .	X16257	2.20	1		5½	
Kitchen . . . .	41	1.96	1	35		
Upper Hall . . .	2901	1.30	1	9		
Porch . . . .	3631	1.14	1	10		

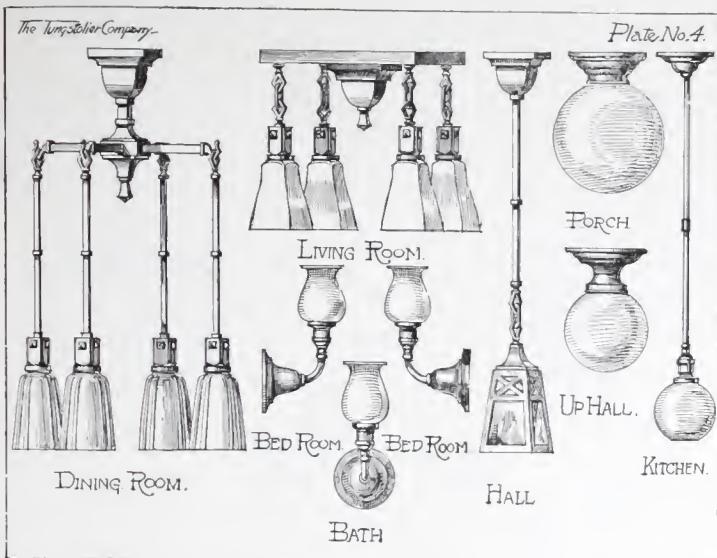
Length is measured to bottom of glassware.

Fixture X16806 is furnished in place of X16257, unless otherwise ordered.

Prices f. o. b. Factory.

Regular key sockets furnished on X16257, all other sockets keyless.

Pull chain sockets may be had at 20 cents each NET.



PRICE COMPLETE FIXTURE SET AS SHOWN ABOVE (Plate No. 4)  
\$41.00.

Dimensions of package above 20" square. Weight 43 lbs.

Price of INDIVIDUAL UNITS wired and complete as shown above.

Name of Fixture	No. of Fixture	Price Complete	Number Lights	Length Inches	Spread Inches	Price Per Foot Extra Length
Living Room . .	X16264	\$16.85	4	15	17½	\$1.40 NET
Dining Room . .	X16262	16.80	4	35	20	1.50 NET
Hall . . . .	X16261	5.40	1	35		.37½ NET
Bed Room . .	X16257	2.20	1		5½	
Bath Room . .	X16257	2.20	1		5½	
Kitchen . . .	41	1.96	1	35		
Upper Hall . .	X16433	2.00	1	10		
Porch . . .	3631	1.14	1	10		

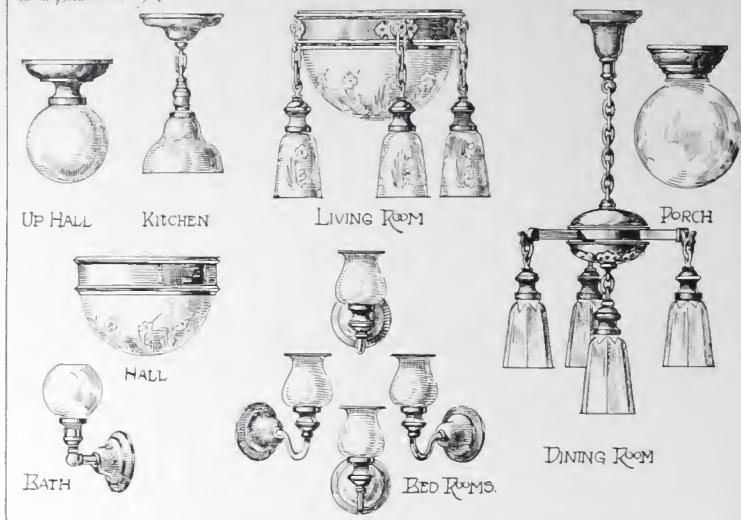
Length is measured to bottom of glassware.

Fixture X16806 is furnished in place of X16257, unless otherwise ordered.

Prices f. o. b. Factory.

Regular key sockets furnished on X16257, all other sockets keyless.

Pull chain sockets may be had at 20 cents each NET.



PRICE COMPLETE FIXTURE SET AS SHOWN ABOVE (Plate No. 7)  
\$65.00.

Dimensions of package about 20" square. Weight 45 lbs.

Price of INDIVIDUAL UNITS wired and complete as shown above.

Name of Fixture	No. of Fixture	Price Complete	Number Lights	Length Inches	Spread Inches	Price Per Foot Extra Length
Living Room . . .	X16056	\$25.00	5	30	15	\$.75 NET
Dining Room . . .	X16557	20.00	4	30	15	.25 NET
Hall . . . . .	X16558	15.30	2	7½		
Bed Room . . .	X16552	3.00	1		9	
Bath Room . . .	C414½	1.76	1		5½	
Kitchen . . . . .	X16256	2.36	1		15	.25 NET
Upper Hall . . .	X16433	2.00	1	10		
Porch . . . . .	3631	1.14	1	10		

Length is measured to bottom of glassware.

Fixture X16806 is furnished in place of X16552, unless otherwise ordered.

Prices f. o. b. Factory.

Regular key sockets furnished on X16552, all other sockets keyless.

Pull chain sockets may be had at 20 cents each NET.



PRICE COMPLETE FIXTURE SET AS SHOWN ABOVE, (Plate No. 8)  
\$40.00.

Dimensions of package about 20" square. Weight 45 lbs.

Price of INDIVIDUAL UNITS wired and complete as shown above.

Name of Fixture	No. of Fixture	Price Complete	Number Lights	Length Inches	Spread Inches	Price Per Foot Extra Length
Living Room . .	X16555	\$13.50	3	12½	12½	\$ .75 NET
Dining Room . .	S16554B	18.00	4	30	15	.25 NET
Hall . . . .	X16256	2.36	1	15		
Bed Room . . .	X16690	2.55	1		9	
Bath Room . . .	C414½	1.76	1		5½	
Kitchen . . . .	41	1.96	1	35		
Upper Hall . . .	X2163	1.90	1	8½		
Porch . . . .	3631	1.14	1	10		

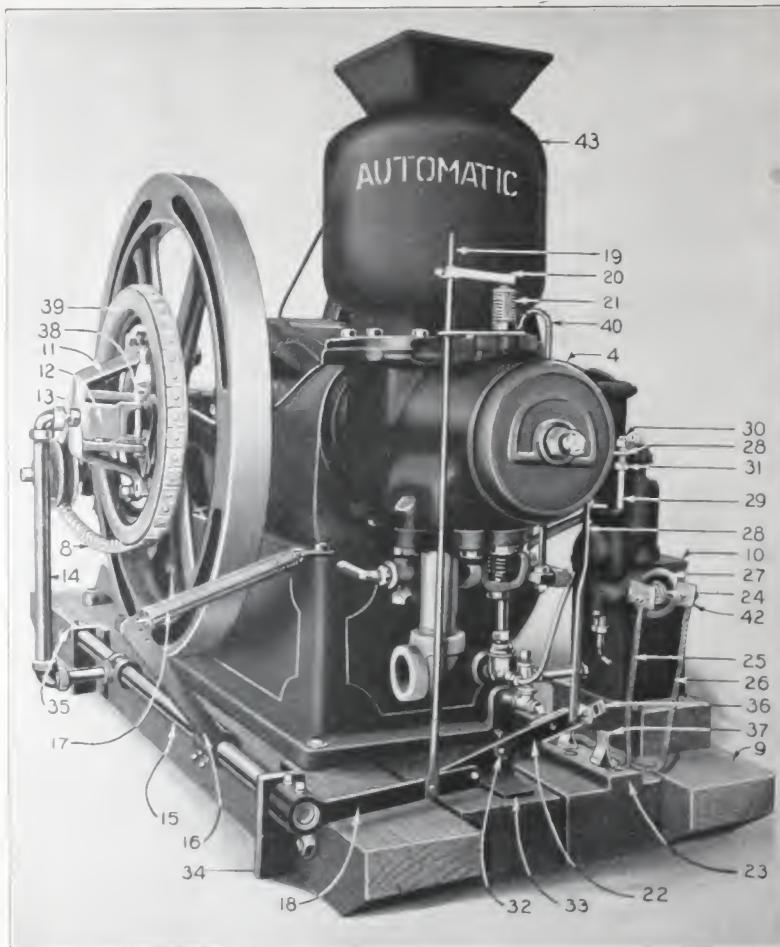
Length is measured to bottom of glassware.

Fixture X16806 is furnished in place of X16690, unless otherwise ordered.

Prices f. o. b. Factory.

Regular key sockets furnished on X16690, all other sockets keyless.

Pull chain sockets may be had at 20 cents each NET.



## Warner Automatic Plants Easy to Run

The above cut shows the starting governor mechanism of The Warner Self-Contained Engine. The "starting governor" relieves the compression in the cylinder at the start, it also primes the carburetor and heats the air taken into the carburetor which makes the starting of the engine both easy and positive, even in winter weather. The engine and all parts of the plant are thoroughly "get-at-able." Every little detail is taken care of automatically, that accounts for the fact that Warner Automatic Electric Light and Power Plants are easy to run.

Every distinctive feature of the Warner Automatic is being protected by patents and you should beware of any one offering for sale plants having any of our Automatic features.

## GUARANTEE

We guarantee all Warner Electric Light Plants to be just as represented. That they are fully tested under full load before shipment, and are guaranteed to run the number of lamps specified; that we guarantee every part of the plant to be of good material and workmanship, and agree to replace free of charge any part or parts of the plant that may become broken or worn from any cause whatsoever (except carelessness, overloading or freezing) within one year from date of shipment, provided (in the judgment of the purchaser), the replacement is one the expense of which should properly be borne by us. We further agree to replace free of charge any part of the plant which may become broken from original defects in material at any time *during the life of the plant*, provided the defective part is returned to us for inspection, transportation prepaid.

### What the Plant Will Do for You

The Warner Automatic Electric Light Plant, aside from furnishing light for the home, barn and outbuildings, may be used to charge the automobile sparker and light battery, also for charging the batteries of an electric automobile.

The following machines can also be successfully operated by our electric system:

Piano Players	Massage Work	Bread Mixers	Stoves
Radiators	Milkers	Concrete Mixers	Tire Pumps
Shredders	Plate Warmers	Curling Irons	Washing Machines
Toasters	Refrigerating	Egg Beaters	Baking Ovens
Vibrators	Hay Cutters	Electric Fans	Chafing Dishes
Wringers	Corn Shellers	Flat Irons	Coffee Pots
Broilers	Cream Separators	Griddles	Dish Washers
Churns	Soldering Irons	Ice Cream Freezers	Electric Signs
Coffee Mills	Warming Pads	Meat Grinders	Floor Polishers
Dumb Waiters	Tea Kettles	Milk Warmers	Water Heaters
Elevators	Feed Mixers	Pumps	Incubators
Foot Warmers	Air Pumps	Sewing Machines	Milk Shakers

These plants may also be used for running moving picture shows, for lighting country clubs, pleasure resorts and summer homes.

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